

REMARKS

Claims 1-25 were previously cancelled. Claims 26-31 are herein pending. Claims 26, 27, 29, 30 and 31 are herein amended. Support for these amendments can be found in the Specification at page 14, lines 8-10, 13-14, page 15, Table 3, page 19, line 8, and page 20, Table 9. Other amendments are made for clarity and typographical reasons.

No new matter has been added.

Objections to the Claims

The Examiner objects to claims 27 and 30 for reciting 3-25% linolenic acid content rather than the "linoleic acid content." Applicants have amended claims 27 and 30 as suggested by the Examiner in the attached proposed amended claim set.

Claim Rejections 35 U.S.C. § 112, Written Description

The Examiner rejects claim 30 under 35 U.S.C. §112, first paragraph, as lacking sufficient written description. Applicants respectfully traverse.

The Examiner asserts that there is no support in the present Specification for "composition consisting of" the vegetable fat and oil, the linolenic acid content of 5% or less, oleic acid content 20-86% and/or a linoleic acid 3-25% (Office Action, pages 2-3). The Examiner states that "the present specification also discloses the addition of alpha-tocopherol and/or an iron composition" (Office Action, page 3).

The Examiner's assertion that the oils disclosed in the Specification contain alpha-tocopherol and/or an iron composition is incorrect. The example beginning on page 19, line 8 compares different types of oils which have an ester of arachidonic acid added to them. Table 1 of the Specification on page 13 characterizes the fatty acid content of each of the oils. Neither alpha-tocopherol nor an iron compound is added in the example on page 19. In particular, the results in table 9 on page 20 demonstrate that the composition of the fatty acids in the fat and oil preparation used is important to the ultimate taste, even if the same amount of arachidonic acid was used. Accordingly, Applicants submit that the Specification more than adequately supports

content 20-86% and/or a linoleic acid 3-25%. Applicants accordingly request that the rejection be withdrawn.

Claim Rejections – 35 USC § 103

The Examiner rejects claims 26-31 under 35 U.S.C. §103 as being unpatentable over Kyle (U.S. 5,550,156). Applicants respectfully traverse.

The Examiner indicates that the final product of Kyle is an “oil composition that provides infant formula with similar PUFA [poly-unsaturated fatty acid] composition to that of breast milk” (Office Action, page 4). This includes both the omega-3 PUFA and omega-6 PUFA.

In Kyle, DHA (22:6 n3, docosahexaenoic acid) is one of the representative PUFA omega-3 fatty acids. ARA (20:4 n6, arachidonic acid) or GLA (18:3 n6, γ -linolenic acid) which is the metabolic precursor to ARA (Kyle, col. 7, lines 29-31) is representative of the omega-6 PUFA.

Borage oil, black currant seed oil, and primrose oil are listed in Kyle as the source of GLA (col. 3, lines 45-46 and col. 7, lines 29-31). Aside from borage oil, Kyle does not disclose any other vegetable fat and oil which has the recited limited α -linoleic acid content. The Examiner has not provided a reason why one of skill would attempt to limit the α -linoleic acid content of a vegetable fat or oil, so disclosure of oils in general is insufficient to teach this feature.

However, based on Kyle, one of skill in the art would not add ARA to borage oil. In Kyle, DHA-containing oil and GLA-containing oil are blended and added to infant formula. Alternatively, DHA-containing oil and ARA-containing oil are blended together. Thus, there would be no reason for one of skill in the art to add ARA (a n-6 fatty acid) to borage oil, which is the source of GLA (another n-6 fatty acid). Specifically, Kyle teaches that ARA and GLA are used for the same purpose and are alternatives.

In contrast, the present invention adds ARA to a vegetable fat or oil having an α -linolenic acid content of 5% or less, where the vegetable fat or oil may include another n-6 fatty acid, for instance, borage oil (Specification, page 8, line 36 to page 9, line 3).

Therefore, one of skill in the art would not have any reason to add ARA to borage oil based on the teachings of Kyle. For at least this reason Applicants request that the rejection be withdrawn.

Applicants also submit that Kyle teaches away from the presently claimed invention. A reference may teach away from a use when that use would render the result inoperable. *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1354 [60 USPQ2d 1001] (Fed. Cir. 2001).

Although DHA is an essential ingredient of the oil mixture of Kyle (because it's addition mimics the PUFA nutritional content of breast milk), DHA is not contained in vegetable oils (Kyle, col. 3, lines 39-41). This is why Kyle uses fish oil and DHASCO microbial oil as the source of DHA in the Examples (See Kyle, col. 3, lines 31-33 describing fish oil and lines 60-61, where DHA is obtained from the dinoflagellate *Cryptocodinium cohnii*). The absence of DHA in vegetable oils is confirmed by the attached References (Table 2-5 on page 35 of VEGETABLE FATS AND OILS, and Table 1.16 on page 48 of BAILEY's Industrial Oil and Fat Products). Thus, by performing the presently claimed method, one of skill in the art would not only be omitting a required feature of Kyle, but would produce a product which is inoperative for the purpose to which Kyle's product is used. Thus, the Examiner has failed to establish a reason why one of skill in the art would add ARA to borage oil in view of the plain teachings of Kyle. For this additional reason, Applicants request that the rejection be withdrawn.

Lastly, Applicants submit that the amounts of fatty acids recited by the Examiner are not the amount of the fatty acid in the oil, but instead are the amount of the fatty acid in the infant formula. Looking at the oil itself, rather than the breast milk formula, the amount of arachidonic acid (20:4 n6) is approximately 26% in Example 1 ($24.75/93.72 \approx 0.264$). Similarly, the oil in Table 3 has approximately 19% arachidonic acid. Overall, the ranges in Kyle are from 17.52-24.75%. The present claims recite that the concentration of ARA is 10-10,000 ppm (maximum 10%) in the vegetable fat composition of the present methods. Thus, the oil composition of Kyle would have an amount of arachidonic acid which is outside the range of the presently claimed methods. One of skill in the art would have no reason to reduce the amount of arachidonic acid or to have any reason to think that such a reduction would improve the taste of the oil composition. For this additional reason, Applicants request that the rejection be withdrawn.

Conclusion

In view of the above remarks, all of the claims are submitted as defining non-obvious, patentable subject matter. Reconsideration of the rejections and allowance of the claims are respectfully requested. Applicants believe the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Susan W. Gorman Reg. No. 47,604 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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Attachments: Table 2-5 on page 35 of VEGETABLE FATS AND OILS
Table 1.16 on page 48 of BAILEY's Industrial Oil and Fat Products